Applicant: Howard J. Federoff et al.

Attorney's Docket No.: 12610-020US1 / 6-11479-1275

Serial No.: To Be Assigned

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Original) A method of treating a patient with a neurodegenerative disease characterized by extracellular plaques, the method comprising administering $A\beta$, or an antigenic fragment or variant thereof, and a molecular adjuvant to the patient in an amount effective to improve one or more symptoms of the neurodegenerative disease.
- 2. (Currently amended) The method of claim 1, wherein the molecular adjuvant is tetanus toxin Fragment C or keyhole limpet hemocyanin.
 - 3. (Canceled)
- 4. (Original) The method of claim 1, wherein the neurodegenerative disease is Alzheimer's disease.
- 5. (Original) The method of claim 1, wherein the $A\beta$, or antigenic fragment or variant thereof, and the molecular adjuvant are administered by injection.
- 6. (Original) The method of claim 1, wherein the $A\beta$, or antigenic fragment or variant thereof, and the molecular adjuvant are encoded by a nucleic acid.

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7. (Currently amended) The method of claim 6, wherein the nucleic acid is contained within a plasmid, expression vector, or virus or an amplicon.

- 8. (Canceled)
- 9. (Currently amended) The method of claim § 7, wherein the amplicon is a herpessimplex virus (HSV) an HSV or HSVhf (HSV helper-free) amplicon.
 - 10. (Canceled)
 - 11. (Canceled)
- 12. (Currently amended) The method of claim 1, wherein Aβ and the molecular adjuvant are admixed, chemically conjugated, or fused into a recombinant polypeptide.
 - 13. (Canceled)
 - 14. (Canceled)
 - 15. (Canceled)
- 16. (Original) The method of claim 1, wherein the symptoms comprise impaired memory, impaired thinking, disorientation, confusion, misplacing objects, impaired abstract thinking, difficulty performing familiar tasks, changes in personality, changes in behavior, impaired judgment, impaired ability to follow directions, impaired language skills, impaired communication skills, impaired visual skills, impaired spatial skills, loss of motivation, loss of initiative, or change from normal sleep patterns.

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17. (Original) The method of claim 1, wherein the method further comprises administration of a conventional adjuvant.

- 18. (Original) The method of claim 17, wherein the conventional adjuvant is alum.
- 19. (Original) A pharmaceutically acceptable composition comprising $A\beta$, or an antigenic fragment or variant thereof, a molecular adjuvant, and a delivery vehicle.
- 20. (Currently amended) The composition of claim 19, wherein the molecular adjuvant is tetanus toxin Fragment C or keyhole limpet hemocyanin.
 - 21. (Canceled)
 - 22. (Original) The composition of claim 19, wherein the vehicle is a virus.
 - 23. (Original) The composition of claim 22, wherein the virus is an HSV virus.
 - 24. (Original) The composition of claim 19, wherein the vehicle is an amplicon.
- 25. (Original) An isolated nucleic acid comprising a sequence encoding $A\beta$, or an antigenic fragment or variant thereof, and a sequence encoding a molecular adjuvant.
- 26. (Currently amended) The nucleic acid of claim 25, wherein the molecular adjuvant is tetanus toxin Fragment C or keyhole limpet hemocyanin.
 - 27. (Canceled)

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28. (Currently amended) A method of treating a patient with a neurodegenerative disease characterized by extracellular plaques, the method comprising administering to the patient

- a. (a) an amplicon plasmid comprising an HSV origin of replication, an HSV cleavage/packaging signal, and a heterologous transgene expressible in the host cell,
- b. (b) one or more vectors that, individually or collectively, encode all essential HSV genes but exclude all cleavage/packaging signals, and
- e. (c) a vector encoding an accessory protein, wherein the transgene encodes a therapeutic protein that improves one or more symptoms of the neurodegenerative disease.
- 29. (Original) The method of claim 28, wherein the neurodegenerative disease is Alzheimer's disease.
- 30. (Original) The method of claim 28, wherein the transgene encodes a molecular adjuvant.
- 31. (Currently amended) The method of claim 28, wherein the molecular adjuvant is tetanus toxin Fragment C or keyhole limpet hemocyanin.
 - 32. (Canceled)
 - 33. (Original) The method of claim 28, wherein the transgene encodes Aβ.
- 34. (Original) The method of claim 28, wherein the transgene encodes both $A\beta$ and a molecular adjuvant.

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35-48. (Canceled)